

Sub 1  
which is a continuing application of Serial No. 08/120,601 filed September 13, 1994, which is a continuing application of U.S. Serial No. 08/056,886, filed on March 8, 1993.--

**In the Claims:**

Please cancel claims 1-43 and 48-64, without prejudice or disclaimer.

Please amend the following claims:

44. (Amended) A process of screening a candidate substance for its ability to interact with a mu opioid receptor[, said process ]comprising [the steps of]:
- a) providing a mu opioid receptor polypeptide;
  - b) obtaining a candidate substance; and
  - c) testing the ability of said candidate substance to interact with said opioid receptor.

Please add the following new claims:

- 65. A process for screening a candidate substance for its ability to interact with a mu opioid receptor comprising:
- (a) providing a recombinant opioid receptor polypeptide encoded by a nucleic acid sequence comprising at least 35 contiguous nucleotides of SEQ ID NO:7, including the guanine nucleotide at position 389 of SEQ ID NO:7;
  - (b) contacting the substance with the recombinant opioid receptor polypeptide; and
  - (c) detecting the ability of the candidate substance to interact with the recombinant opioid receptor polypeptide.

66. The process of claim 65, wherein the nucleic acid sequence comprises at least 40 contiguous nucleotides of SEQ ID NO:7, including the guanine nucleotide at position 389 of SEQ ID NO:7.

Cont

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The process of claim 65, wherein the nucleic acid sequence comprises at least 45 contiguous nucleotides of SEQ ID NO:7, including the guanine nucleotide at position 389 of SEQ ID NO:7.

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The process of claim 65, wherein the nucleic acid sequence comprises at least 50 contiguous nucleotides of SEQ ID NO:7, including the guanine nucleotide at position 389 of SEQ ID NO:7.

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The process of claim 65, wherein the nucleic acid sequence comprises at least 75 contiguous nucleotides of SEQ ID NO:7, including the guanine nucleotide at position 389 of SEQ ID NO:7.

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The process of claim 65, wherein the nucleic acid sequence comprises at least 100 contiguous nucleotides of SEQ ID NO:7, including the guanine nucleotide at position 389 of SEQ ID NO:7.

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Seq B7

The process of claim 65, wherein the nucleic acid sequence comprises the nucleotide sequence of SEQ ID NO:7, including the guanine nucleotide at position 389 of SEQ ID NO:7.

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The process of claim 65, wherein detecting the ability of the candidate substance to interact with the recombinant opioid receptor polypeptide involves measuring (i) binding ability; (ii) the ability of the recombinant opioid receptor polypeptide to bind the candidate substance; (iii) ability of candidate to activate ion channels in a cell membrane; or (iv) modulation of ion channels in the cell membrane.

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The process of claim 65, wherein recombinant opioid receptor polypeptide is chimeric.

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A process for screening a candidate substance for its ability to interact with an opioid receptor comprising:

- AA  
cont
- (a) expressing a recombinant opioid receptor polypeptide encoded by a nucleic acid sequence comprising at least 35 contiguous bases of SEQ ID NO:7, including the guanine nucleotide at position 389 of SEQ ID NO:7;
  - (b) contacting the candidate substance with the recombinant opioid receptor polypeptide; and
  - (c) detecting the ability of the candidate substance to interact with the recombinant opioid receptor polypeptide.
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75/76. The process of claim 75, wherein nucleic acid sequence comprises at least the guanine nucleotide at position 389 of SEQ ID NO:7.

76/77. The process of claim 75, wherein the nucleic acid sequence comprises at least 40 contiguous nucleotides of SEQ ID NO:7, including the guanine nucleotide at position 389 of SEQ ID NO:7.

77/78. The process of claim 75, wherein the nucleic acid sequence comprises at least 45 contiguous nucleotides of SEQ ID NO:7, including the guanine nucleotide at position 389 of SEQ ID NO:7.

78/79. The process of claim 75, wherein the nucleic acid sequence comprises at least 50 contiguous nucleotides of SEQ ID NO:7, including the guanine nucleotide at position 389 of SEQ ID NO:7.

79/80. The process of claim 75, wherein the nucleic acid sequence comprises at least 75 contiguous nucleotides of SEQ ID NO:7, including the guanine nucleotide at position 389 of SEQ ID NO:7.

80/81. The process of claim 75, wherein the nucleic acid sequence comprises at least 100 contiguous nucleotides of SEQ ID NO:7, including the guanine nucleotide at position 389 of SEQ ID NO:7.